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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/665,805

09/18/2003

David Anthony Cook

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EXAMINER

GEREZGIHER, YEMANE M

ART UNIT

PAPER NUMBER

2144

MAIL DATE

DELIVERY MODE

05/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/665,805	Applicant(s) COOK, DAVID ANTHONY	
	Examiner Yemane M. Gerezgiher	Art Unit 2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>09/18/2003 and 03/02/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application has been examined. Claims 1-24 are pending.

Information Disclosure Statement

2. The Examiner has considered the references listed on the Information Disclosure Statement submitted on 09/18/2003 and 03/02/2005 (see attached PTO-1449).

Drawings

3. Figure 1-5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 7, 8, 12, 13, 15, 16, 20 and 21 rejected under 35 U.S.C. 102(e) as being anticipated by Chen (U.S. Patent Number 6,553,423).

As per claims 1, 8, 12, 16, and 21, (e.g., exemplary Independent Claim 1), Chen disclosed a method for allowing a router to efficiently determine a capability and configuration of a peer router in a computer network [Abstract, and Column 3, Lines 10-36, determination of router's routing capabilities and Column 6, Lines 18-19 ("...a technique for dynamically exchanging or updating routing capabilities between neighboring peer routers in a computer network..."), the method comprising the steps of: automatically determining which capability mode of operation the peer router supports by sending an initial message from the router to the peer router, the initial message including a first predetermined value of the capability [Column 3, Lines 10-

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36, dynamically announcing and updating of capabilities among routers and Column 5, Lines 7-21, ...interdomain routers ("neighboring peer routers") exchanging routing and reachability information...one of the neighboring peer routers sending a message... and Column 5, Lines 25-29, ...the message including therein predetermined parameters specified by the peer routers, the parameter field being a capability parameter introducing new features that may be supported by a peer router]; if the router receives a positive acknowledgement of the initial message from the peer router, determining that the peer router supports exchanges of messages using a new capability mode of operation; if the router receives a negative acknowledgement of the initial message from the peer router, deciding that the peer router does not support the new capability mode of operation [Column 5, Line 20 through Column 6, Line 43, pointing to a "capability negotiation with BGP-4", which address the operation of a BGP speaker router determining capability of it's peer router via a NOTIFICATION including error subcode set to Unsupported Capability, which is received from the peer router and accordingly, determining if the peer router supports the new capability and if it does not support the new capability, re-sending another message with a different optional capability parameter]; and switching to an old capability mode of operation by resending the initial message with a second predetermined value of the capability [Column 6, Lines 4-65, replacing to a previously (old) announced capability].

As per claims 2, 13 and 17, wherein the step of deciding comprises the step of, if the router does not receive a response at all within a predetermined time, deciding that the peer router does not support the new capability mode of operation [Column 5, Lines 20-64, Chen disclosed determination of a peer router incapability when a peer router fails to reply to the message initiated by the router].

As per claims 7, 15, and 20, Chen further disclosed upgrading the peer router to the new capability mode of operation [Chen, Column 6, Lines 44-53, adding new capability]; rebooting the peer router, thereby destroying an existing session between the routers [Column 6, Lines 4-16, TCP connection being closed and reset and re-establishing a connection]; establishing a new session by sending messages with the first predetermined value of the capability [Fig. 7, Column 5, Lines 29-41]; and communicating between the routers using messages with the first predetermined value of the capability [Chen, Column 5, Lines 29-41 and Column 6, Lines 31-56].

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-6, 9-11, 14, 18, 19 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent Number 6,553,423) in view of Gill et al., ("The BGP TTL Security Hack (BTSH)").

As per claims 3-6, 9-11, 14, 18, 19 and 22-24, Chen substantially disclosed the invention and further taught that the initial message is Border Gateway Protocol (BGP) routing protocol message [Column 6, Lines 41-43]. However, Chen was silent about new capability parameter being a time-to-live (TTL) parameter defined by BGP TTL Security Hack (BTSH). However, a time-to-live (TTL) parameter defined by BGP TTL Security Hack (BTSH) was taught in the art at the time the invention was made [see, Gill et al. Internet draft, <draft-gill-btsh-02.txt>, published on May 2003, Abstract through § 4 (Security Considerations)]. Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Gill et al. related to BGP TTL Security Hack (BTSH) and have modified the teachings of Chen in order "to protect the BGP ... infrastructure from CPU-utilization based attacks and provide a lower level of protection to multi-hop sessions" (see Gill et al., Abstract and § Introduction).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- a. Harvey et al. (US 20030140167 A1) entitled: "Method and apparatus for synchronizing redundant communication tasks"
 - b. Harvey et al. (US 20030140166 A1) entitled: "Method and apparatus for facilitating routing protocol redundancy in a network element"
 - c. Squire et al. (US 7139838 B1) entitled: "Apparatus and method of distributing routing information"
 - d. He (US 20040034702 A1) entitled: "Method and apparatus for exchanging intra-domain routing information between VPN sites"
 - e. Bays (US 7139242 B2) entitled: "Methods, apparatuses and systems facilitating deployment, support and configuration of network routing policies"
 - f. Dispensa et al. (US 20040039840 A1) entitled: "Method and system for splitting and sharing routing information among several routers acting as a single border router"
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yemane M. Gerezgiher whose

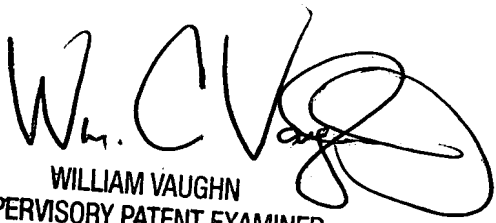
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telephone number is (571) 272-3927. The examiner can normally be reached on 9:00 AM - 6:00 PM Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner,
Y. Gerezgiher,
AU: 2144


WILLIAM VAUGHN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100